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Knowledge Level of Beneficiary Farmers of Agriculture Technology Management and Quality Improvement Centre (ATMQIC) Regarding Intergrated Farming System in Jaipur District of Rajasthan

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Abstract

Sustainable agriculture means an integrated approach to increase farm yield and managing resources in order to address all three critical aspects of sustainability: economic, environmental and social. The IFS approach has multiple objectives of sustainability, food security, farmer security and poverty reduction. Keeping in view the facts the study was conducted in three selected villages of Jaipur District of Rajasthan and 120 respondent farmers were selected from these three selected villages through proportional allocation to the size of the population .The knowledge of ATMQIC beneficiary farmers was measured and found that majority of respondents (72) of ATMQIC (60.00 per cent) belonged to middle level of knowledge categories , followed by high (26.66 per cent) and low (13.34 per cent) knowledge categories of respondents of ATMQIC about Integrated Farming System. The findings of the study indicated that majority of respondents of ATMQIC were found to have adequate knowledge regarding Integrated Farming System.

Key words: ATMQIC, Knowledge, Agriculture, Schemes, demonstrations, Farmers, Technology, Integrated Farming System

Introduction

Agricultural growth plays an important role in achieving certain national goals, such as reducing rural poverty, providing food and nutritional security, supplying raw materials to major industries where as central and state govt. were started a number of projects to increase agriculture production to mitigate demand of growing population. In this sector Sri Karan Narendra Agriculture University (SKNAU) Jobner started various projects specially for infrastructure development and transfer of technology. The Agriculture Technology Management & Quality Improvement Centre (ATMQIC) project sanctioned under Rashtriya Krishi Vikas Yojana (RKVY) was one of them introduced in selected areas of SKNAU, Jobner to transfer the Agriculture technology. Demonstrations unit including Integrated Farming System, Micro irrigation system (sprinkler, drip), Solar energy technology, Water harvesting system, Nursery shed (Seed and planting material, small implements) etc.. Sustainable agriculture means an integrated approach to increase farm yield and managing resources in order to address all three critical aspects of sustainability: economic, environmental and social. The IFS approach has multiple objectives of sustainability, food security, farmer security and poverty reduction. The salient features of IFS include – innovation in farming for maximizing production through optimal use of local resources, effective recycling of farm waste for productive purposes, community-led local systems for water conservation, organic farming, and developing a judicious mix of income-generating activities such as dairy, poultry, fishery, goat-rearing, vermicomposting and others. Such components used in IFS Model of ATMQIC project are: pond/fish culture, vermi-compost, solar pump, fruit production, floriculture, dairy & animal husbandry, shed net house, medicinal plants, poultry farming, duck culture, crop production, vegetable and fruit production, fodder production, nursery etc.

Materials and Methods

The district Jaipur of Rajasthan was selected purposely because the ATMQIC project activities were implemented in three selected villages viz.,Dhani Boraj and Khejrawas of Panchayat Samiti Sambhar Lake and village I Dan ka Bas of Dudu. A list of all the respondents/farmers of three selected villages who have been benefited under ATMQIC was prepared with the help of project staff and 120 beneficiaries were selected randomly from these three selected villages through proportional allocation to the size of the population. An interview schedule was developed in accordance with the objective of the study based on expert opinion and literature reviewed which was pre-tested and applied in the field. The data given technology about Integrated Farming System were collected with the help of interview schedule. The collected data were classified, tabulated, analysed and interpreted in order to make the findings meaningful. The statistical measures such as percentage, mean, mean percent score, standard deviation etc. were used to reach at conclusion.

Method of scoring knowledge

The statements related to knowledge about various activities of ATMQIC based on recommendation of Directorate of Extension Education, SKNAU Jobner, Jaipur and further implementing agencies were included. The statements after edition / deletion and/or modification, based on expert's opinion were prepared and the final knowledge schedule containing ten major activities of project was used. Each major activity also had sub items / activities which had total five items relating to activities of ATMQIC. For measuring the knowledge level of respondents, a knowledge Index was developed and score "1" was awarded for correct answer and '0' for wrong answers to each item. Thus, knowledge score was ready for administering to various activities of ATMQIC.

The minimum and maximum possible score one could obtain was 0 and 5. The mean and standard deviation of all the farmers were computed for classifying the knowledge level in different categories. Based on the mean score and standard deviation, three categories of knowledge of various activities of ATMQIC were formulated under low, medium and high.

Tools and Techniques for Data Collections.

Keeping in mind the objectives of the study, an interview schedule was prepared. The respondents were interviewed personally and data were collected in the schedule by the investigator. The data were collected with the help of an interview schedule consisting of measuring devices of selected variables along with the data of the respondents. The developed interview schedule was pre-tested with 28 farmers (other than the study sample) so as to achieve clarity of language, coverage of subject matter, to remove the double barreled questions from the schedule. The schedule was then revised in the light of modifications, suggestions received from the expert's and farmers.

The investigator personally contacted to all the respondents. An appropriate rapport was first established with the respondents so that respondents can feel free to give answers. All one hundred twenty respondents were interviewed mainly at their residence and at their farm. The final schedule was used after being personally introduced to the respondents. The responses were recorded in the schedule by the searcher herself after interviewing the respondents. Before interview, the purpose of the study was explained to the respondents to get the unbiased response from the respondents.

Tabulation, analysis and interpretation of data

Frequency and Percentage -Simple comparisons were made on the basis of frequency and percentage.

Mean Per cent Score (MPS) - It was computed by multiplying stotal obtained score of the beneficiaries of ATMQIC to 100 and dividing by the maximum obtainable score under each practice.

RESULTS & DISCUSSION

Under this section it was tried to find out the level of knowledge of beneficiary farmers about Integrated Farming System conducted under ATMQIC project. The knowledge of Integrated Farming System by the beneficiaries of ATMQIC was divided into three categories viz.,Low,medium and high based on the mean and standard deviation. The results are presented in table no.1 and diagrammatically in figure no.1.

Table 1: Distribution of beneficiary farmers regarding Integrated Farming System of ATMQIC Project

S.No.	Knowledge Categories	Frequency	Percentage
1.	Low (<2.55 scores)	16	13.34
2.	Medium (between 2.55-4.85 scores)	72	60.00
3.	High (>4.85 scores)	32	26.66
Total		120	100.00

The data presented in table -1 reveal that majority of beneficiary farmers of ATMQIC i.e. 72 (60.0 per cent) belonged to category of Middle knowledge level followed by High (26.66 per cent) and Low (13.34 per cent) category of knowledge level related to integrated farming system of ATMQIC project. Therefore, it might be concluded from the findings that majority of the beneficiaries of ATMQIC were found to have medium knowledge level about integrated farming system.

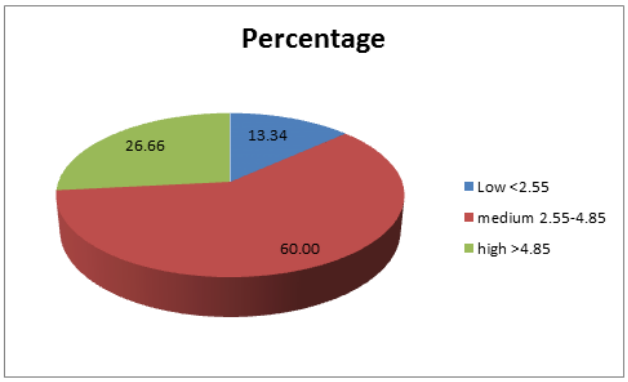

Figure 1: Distribution of beneficiary farmers regarding Knowledge level of Integrated Farming System of ATMQIC

Practice wise Knowledge of beneficiary farmers about Integrated Farming System of ATMQIC Project:

Crop wise knowledge of ATMQIC beneficiary farmers was also worked out to get a clear picture of knowledge possessed by them. For this, mean per cent scores for each crops was calculated and ranks were awarded accordingly. The results of the same have been presented in table2. Regarding practice wis, it was found that first rank was given to the knowledge level of IFS sustaining the farm income (79.17 MPS) followed by knowledge level of IFS enhance agricultural production qualitative & quantitative and sustain the Agriculture (75.83 MPS), reducing the risk probability in crop production (73.33 MPS), mean of Integrated farming system (71.67 MPS) and importance/benefits of IFS (70..00 MPS) and second, third, fourth fifth ranks were awarded, respectively.

Table 2: Practice wise Knowledge of beneficiary farmers about Integrated Farming System of ATMQIC Project.

S.No.	Name of Crops	MPS	Rank
1.	Mean of Integrated farming system	71.67	IV
2.	Importance/ benefits of IFS	70.00	V
3.	IFS enhance agricultural production qualitative & quantitative and sustain the Agriculture production	75.83	II
4.	Reducing the risk probability in crop production	73.33	III
5.	IFS sustaining the farm income	79.17	I

It might be concluded from the findings that majority of respondents were having knowledge level about IFS sustaining the farm income which got the top rank and the second highest rank was assigned to knowledge about IFS enhance agricultural production qualitative & quantitative and sustain the agriculture production. This might be due to the facts that it increase the famers income with low cost of cultivation. It improves the soil fertility and increase the quality and quantity of production and fufill the farmers requirment about agriculture production.

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